

27 Aug 01

DEPARTMENT OF THE AIR FORCE
Aerospace Basic Course (AETC)
Maxwell Air Force Base, Alabama 36112

LESSON PLAN

A3050, OPERATION DESERT STORM

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RECORD OF CHANGES

CHANGE NUMBER	REMARKS
New Lesson Plan	Supercedes ABC lesson 1265 dated 7 Aug 00

SUMMARY OF CHANGES

EDUCATIONAL GOALS

A3000 Area Objective: Comprehend the significance of aerospace history and doctrine to modern warfare.

A3050 - OPERATION DESERT STORM

Lesson Objective 1: Know why and how the United States intervened in the Persian Gulf following Iraq's invasion of Kuwait.

Samples of Behavior:

(R/S) 1.1 - State the reasons why the United States intervened in the Persian Gulf following Iraq's invasion of Kuwait.

(R/S) 1.2 - List the key members of the US-led coalition developed after Iraq's invasion of Kuwait.

(R/S) 1.3 - List selected milestones which the US and coalition forces set and achieved following Iraq's invasion of Kuwait.

(R/S) 1.4 - Describe the US and coalition forces' plan during Operation DESERT STORM.

(R/S) 1.5 - Describe selected historical events within the Persian Gulf region which had an impact on Operation DESERT STORM, such as the Battle of Khafji and the Iraqi Scud attacks on Israel.

Lesson Objective 2: Comprehend how the USAF Core Competencies contributed to Operation DESERT STORM.

Samples of Behavior:

(R/S) 2.1 - Describe how the USAF Core Competencies contributed to Operation DESERT STORM.

(R/S) 2.2 - Provide examples of how the USAF Core Competencies contributed to Operation DESERT STORM.

Lesson Description: This lesson focuses on Operation DESERT STORM. This lesson covers the facts of the operation as well as the employment of Air Force Core Competencies during the campaign. Additionally, students will discuss lessons learned from Operation DESERT STORM in order to develop their own perspectives on how the experience and analysis of Operation DESERT STORM can provide the basis for developing tomorrow's military theories and doctrine.

Prerequisites: A1300 Phase and A3010, Theory, Doctrine, Objectives, and Strategy

Preparation: Read A3050, Operation DESERT STORM.
Review AFDD 1, pp. 27-35.

Optional: N/A

Rationale/Linkage: This lesson and A3060, Operation ALLIED FORCE, are case studies in the history of aerospace operations. These two lessons give students opportunities to discuss historical examples of aerospace operations--opportunities unavailable to students in lectures A3020, Origin and Theory of Airpower; A3030, Forged in Fire, Part I; and A3040, Forged in Fire, Part II. Students should discuss how the experience and analysis of these aerospace operations can provide the basis for developing military theories and doctrine. (Students discussed that concept in A3010, Theory, Doctrine, Objectives, and Strategy.) Operation DESERT STORM was the first major campaign to test the American military since the Vietnam War. Students should understand how this operation was the catalyst for dramatic change in military theory, doctrine, and Air Force organization and culture. In addition, students should debate how well the Air Force performed its six Core Competencies during Operation DESERT STORM, although they were not formally recognized as such at the time. This lesson and A3060 encourage students to draw intelligent conclusions and to debate, perhaps heatedly, the similarities and differences between the way the military prosecuted both Operation DESERT STORM and Operation ALLIED FORCE. These two lessons also inspire students to continue their life-long learning in the area of Military Studies.

INSTRUCTIONAL PLAN

1. **TITLE AND LENGTH OF SEMINAR:** Operation DESERT STORM (1:30)
2. **RELATION TO OTHER INSTRUCTION:** This lesson and A3060, Operation ALLIED FORCE, are case studies in the history of aerospace operations. These two lessons give students opportunities to discuss historical examples of aerospace operations--opportunities unavailable to students in lectures A3020, Origin and Theory of Airpower; A3030, Forged in Fire, Part I; and A3040, Forged in Fire, Part II. Students should discuss how the experience and analysis of these aerospace operations can provide the basis for developing military theories and doctrine. (Students discussed that concept in A3010, Theory, Doctrine, Objectives, and Strategy.) Operation DESERT STORM was the first major campaign to test the American military since the Vietnam War. Students should understand how this operation was the catalyst for dramatic change in military theory, doctrine, and Air Force organization and culture. In addition, students should debate how well the Air Force performed its six Core Competencies during Operation DESERT STORM, although they were not formally recognized as such at the time. This lesson and A3060 encourage students to draw intelligent conclusions and to debate, perhaps heatedly, the similarities and differences between the way the military prosecuted both Operation DESERT STORM and Operation ALLIED FORCE. These two lessons also inspire students to continue their life-long learning in the area of Military Studies.
3. **GENERAL METHOD OF INSTRUCTION:**

a. **Presentation Method:** Guided discussion

b. **Time Outline:**

Segment Time	Total Time	Description
0:10	(0:10)	Introduction
0:25	(0:35)	MP I: Details of Operation DESERT STORM
0:20	(0:55)	MP II: Core Competencies and Operation DESERT STORM
0:25	(1:20)	MP III: Lessons Learned
0:10	(1:30)	Conclusion

c. Instructor Preparation:

- Review the lesson plan.
- Read A3050, Operation DESERT STORM.
- Review AFDD 1, pp. 27-35.

d. Instructional Aids/Handouts:

- Slides
- Video: “Beyond the Wild Blue” with Colonel Walter Boyne from The History Channel

e. Student Preparation:

- Read A3050, Operation DESERT STORM.
- Review AFDD 1, pp. 27-35.

f. Strategy: This lesson is a guided discussion. The discussion should focus on three areas: First, address some of the historical “facts” of the war. Then, discuss how the Air Force Core Competencies relate to the history of Operation DESERT STORM. Use this time to review and discuss what students learned about the Air Force Core Competencies in the A1300 Phase of instruction. Next, address lessons learned during Operation DESERT STORM. Be sure students understand how Operation DESERT STORM changed the way the Joint force employs aerospace power and set a precedent for future operations. Encourage students to discuss the impact of politics on military operations and to reflect on their own experiences in studying the history of military operations.

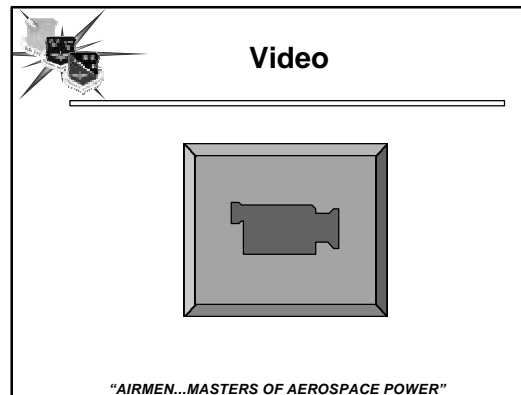
g. References: N/A

4. DETAILS OF INSTRUCTION:

a. Introduction: 0:10 (0:10)

1) //Attention//

[SLIDE]



{Instructor Note: Show clip from History Channel's presentation, "Beyond the Wild Blue" with Colonel Walter Boyne.}

2) //Motivation//

[SLIDE]



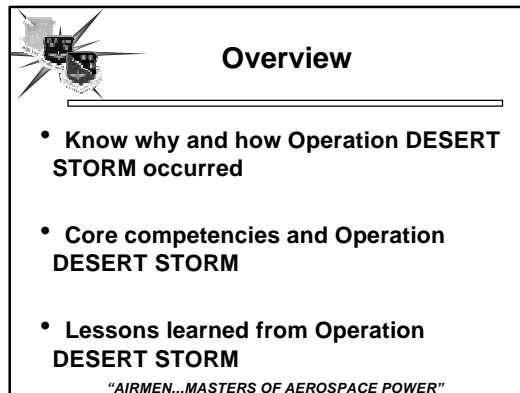
Most of you have probably not been in combat yet. But in the last decade, your Air Force was involved in several military engagements that shaped the very doctrine you're studying here at ABC. The largest of these engagements, Operation DESERT STORM, included more people and resources than any American military operation since the Vietnam War. Based on the lessons learned from Vietnam and 40 years of "Cold War" doctrine, Operation DESERT STORM

was the “win” most veterans had been anticipating their entire careers. In addition, it significantly impacted the way we fight wars, especially using aerospace power. Therefore, it is imperative for you to understand the campaign and the doctrinal and cultural changes that occurred because of it. **The bottom line is, the Gulf War proved what 90 years of aviation history hadn’t, up to that time: Aerospace power can “win” wars, not just “support” them.**

{Instructor Note: Before the Overview, ask prior-enlisted students whether they were in service during this conflict. If so, ask them to elaborate on any of their experiences from that time period. You can also ask any of your students if they would be willing to speak about friends or family members who had served during this conflict. At your discretion, you may take the opportunity to discuss these experiences before you begin, or you may return to them when they fit into the lesson as outlined below.}

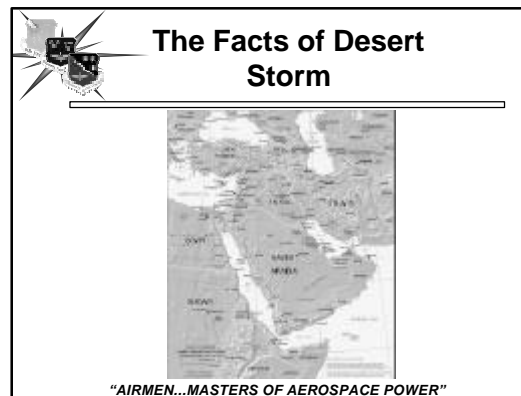
3) //Overview//

[SLIDE]



We’ll start with some basic “facts” about the war--including some reasons why the war happened. Then, we’ll discuss how the Air Force Core Competencies contributed to different aspects of the campaign. Finally, we’ll discuss some “lessons learned” concerning the use of airpower during the war. This will be especially beneficial to you as you prepare for lesson A3060, Operation ALLIED FORCE.

[SLIDE]



b. MP I: Details of Operation DESERT STORM: 0:25 (0:35)

QUESTIONS

LEAD OFF QUESTION (LOQ): WHAT EVENT TRIGGERED THE US TO INITIATE OPERATIONS DESERT SHIELD/DESERT STORM? WHEN DID IT OCCUR?

ANTICIPATED RESPONSES (AR):

- Iraqi invasion of Kuwait on 2 Aug 1990
- Saddam Hussein took control of region

FOLLOW UP QUESTION (FUQ): WHY WAS THE US SO CONCERNED WITH THIS INCIDENT?

- Access to Persian Gulf oil and protection of the sovereignty of key allies in the region was at stake

FUQ: WHAT TYPE OF INTEREST DID THIS REPRESENT FOR THE US?

AR:

- Important, because national survival or sovereignty of the US was not at stake
- But the petroleum reserves of Kuwait and Saudi Arabia were extremely important, economically
- Balance of power in the region was at stake as well

FUQ: HOW DEPENDENT IS THE US ON MIDDLE EASTERN OIL? WHAT PERCENTAGE OF OUR OIL CONSUMPTION COMES FROM THE MIDDLE EAST?

AR:

- We don't get most of our oil from the Middle East
- Actually, only about 10% comes from the Middle East
- In fact, we get more oil from South America (approximately 35%)
- **However**, our allies (such as France) get most of their oil from the Middle East--and Japan doesn't have a single drop of domestic oil (Japan is a volcanic island--its geologic composition doesn't include any fossil fuels.)
- If the Middle Eastern oil production shut down, Europe would shut down

FUQ: WHEN DID OPERATION DESERT SHIELD START? WHEN DID IT END?

AR:

- Began 7 Aug 1990, lasted until 16 Jan 1991
- Consisted of military buildup in the region as well as defense of Saudi border from further Iraqi aggression
- DESERT SHIELD was almost 6 months long. In the future, we might never get that kind of opportunity to build up for a war ever again
- Operation DESERT STORM took almost 6 months to prepare for and only 43 days to execute
- Not since the Vietnam War had the US undertaken such a large-scale operation (over ½ million troops at height of buildup)

FUQ: WHEN DID OPERATION DESERT STORM START? WHEN DID IT END?

AR:

- Began 17 Jan 1991, lasted until 28 Feb 1991
- Consisted of a 43-day-long air campaign and a 100-hour ground campaign

FUQ: WHICH PRINCIPAL COUNTRIES JOINED EFFORTS IN THE COALITION AGAINST IRAQ?

AR:

- Coalition included the US, Kuwait, Saudi Arabia, Britain, Egypt, Bahrain, Qatar, Oman, and the United Arab Emirates
- Many other NATO and non-NATO countries also joined the coalition, but most military assets and basing infrastructure was provided by the countries mentioned above

FUQ: WHY DID WE HAVE TO FORM A COALITION IN THE FIRST PLACE?

AR:

- To get the other Arab countries behind us so we (the US) didn't look like the "Big Bad Wolf" (i.e., we didn't want to appear as the aggressor)

FUQ: WHO WAS THE CHAIRMAN OF THE JOINT CHIEFS OF STAFF AT THE TIME?

AR:

- General Colin Powell, US Army

FUQ: WHICH UNIFIED COMMAND WAS RESPONSIBLE FOR THE AREA?

AR:

- US Central Command (USCENTCOM)

FUQ: WHO WAS THE COMMANDER IN CHIEF (CINC) OF THAT UNIFIED COMMAND?

AR:

- General Norman Schwarzkopf, US Army

FUQ: WHO WAS THE JOINT FORCE AIR COMPONENT COMMANDER (JFACC)?

AR:

- Lt Gen Charles A. Horner, USAF
- Lt Gen Horner was the Commander of the 9th AF at the time
- He was "OPCONed" to CENTCOM as JFACC by Gen Schwarzkopf

FUQ: WHAT SIGNIFICANT EVENT HAPPENED ON 8 NOV 1990?

AR:

- President Bush announced the addition of 200,000 more troops to the theater--almost doubling existing forces. This, he said, would give American commanders the capacity for “offensive” operations

FUQ: WHAT WAS THE UNITED NATION’S REACTION TO IRAQ’S INVASION OF KUWAIT?

AR:

- The UN condemned Iraq’s invasion from the start and quickly passed several resolutions instituting a trade embargo aimed at making Iraq capitulate diplomatically
- However, the most important resolution the UN passed was UN Declaration 678 on 29 Nov 1990, which required the Iraqis to withdraw from Kuwait by midnight on 15 Jan 1991--in effect, this set a deadline for action

FUQ: WHAT WERE PRESIDENT BUSH’S NATIONAL OBJECTIVES?

AR:

- Unconditional withdrawal of Iraq from Kuwait
- Restore Kuwaiti sovereignty
- Protect lives of American citizens abroad
- Promote security and stability of Persian Gulf

FUQ: HOW WERE THESE OBJECTIVES RELAYED TO MILITARY PLANNERS?

AR:

- The original planning cell in the Pentagon’s basement (called “Checkmate”) culled those objectives from a speech President Bush had given after Iraq’s invasion. This speech was printed in the Washington Times.
- In other words, there was no formal transmittal of President Bush’s national objectives to the Pentagon. (This should not be the case, today.)
- However, President Bush accepted those objectives after they were presented in the initial air campaign plan. (Refer to the following question.)

{Instructor Note: Be absolutely certain the students understand the difference between “Instant Thunder,” Operation DESERT SHIELD, and Operation DESERT STORM. Review the section of the reading called “The Thunder and Lightning of the ‘Storm,’” beginning on page A3050-R-8.}

FUQ: WHAT WAS THE NAME OF THE INITIAL AIR CAMPAIGN PLAN THAT WAS BRIEFED TO GENERAL HORNER, BEFORE IT BECAME OPERATION DESERT STORM?

AR:

- Col Warden called the initial air campaign plan “Instant Thunder”

FUQ: WHAT MADE INSTANT THUNDER DIFFERENT FROM ANYTHING THE AIR FORCE HAD PLANNED BEFORE?

AR:

- Instant Thunder relied on striking simultaneous centers of gravity in each of Warden’s “Five Rings” in order to exploit the enemy’s weaknesses early and achieve strategic paralysis
- Instant Thunder didn’t plan to apply force gradually in a “piecemeal” operation
- Most significantly, Instant Thunder didn’t plan massive strikes against fielded Iraqi forces to attrit the Iraqi presence in Kuwait

FUQ: HOW, IN GENERAL, WAS INSTANT THUNDER MODIFIED TO CREATE THE AIR OPERATIONS PLAN FOR OPERATION DESERT STORM?

AR:

- To appease General Powell, attacks against fielded Iraqi ground forces were incorporated into the strategic bombing campaign

FUQ: WHICH ASPECT OF THE THEN-NEW JOINT DOCTRINE MADE DESERT STORM DIFFERENT FROM EARLIER OPERATIONS?

AR:

- One JFACC controlled all air assets via the ATO (thus providing centralized control and decentralized execution)

FUQ: WHAT ACTION DID IRAQ TAKE IN AN ATTEMPT TO BRING ISRAEL INTO THE WAR?

AR:

- Iraq fired SCUD missiles at Israel
- If Israel had entered the war, the coalition would probably have dissolved

FUQ: WHY WAS IT SO IMPORTANT TO KEEP ISRAEL OUT OF THE WAR?

AR:

- Iraq hoped to turn this conflict into an Arab war against Israel, not a Coalition fight to oust one Arab aggressor (Iraq) out of another Arab state (Kuwait)
- If Israel entered the war, the Coalition of Arab nations (e.g., Saudi Arabia) could have fallen apart, and an Arab war against Israel could have begun. If that happened, Iraq would have achieved its objectives in Kuwait and possibly in Israel, too

FUQ: WHAT WAS THE NAME OF THE BATTLE IN WHICH IRAQI GROUND FORCES WERE SOUNDLY DEFEATED BY A MAJORITY OF AIR POWER ASSETS AS THE IRAQIS TRIED TO CROSS INTO SAUDI ARABIA?

AR:

- Battle of Khafji

{Instructor Note: Background Information on the Battle of Khafji:

In their initial attack, the Iraqis succeeded in capturing the town of Al-Khafji. The coalition's response to the Iraqi offensive clearly demonstrated the value of air superiority and close air-ground cooperation. The Iraqis lacked aerial reconnaissance and air support while coalition aerial assets (including the U-2, E-8 JSTARS, and UAVs) detected and monitored the massing of several hundred Iraqi tanks and other armored vehicles for the attack. Coalition ground forces received fire support from Marine AH-1W helicopters, AC-130 Gunships, and a variety of fixed-wing aircraft.

The coalition's deep-look surveillance capability enabled airpower to disrupt the Iraqi attacks before they gathered momentum. The combined air and ground

forces quickly broke the back of the Iraqi offensive. On the first night of the attack, a JSTARS crew detected a large convoy moving toward the Saudi border and sent one AC-130 and two A-10s to the convoy. Fifty-eight of 71 Iraqi vehicles were destroyed. On the second night of the battle, the two Iraqi divisions were seriously damaged by air attacks before they could contact coalition ground forces. AV-8Bs, F/A-18s, A-6s, A-10s, F-15s, F-16s, AC-130s, and B-52s attacked troop concentrations, tanks, armored vehicles, trucks, and artillery pieces. The B-52s also dropped armor-sensing mines in the path of the Iraqi advance. In one night, airpower had destroyed the combat power of two Iraqi divisions. The raid on Khafji was a dismal failure for Iraq. A Saudi-Qatar task force quickly recaptured the town and reestablished coalition control of the border. The coalition's performance demonstrated the vulnerability of surface forces to air attack when they are moving in the open. This was a very serious problem for the Iraqis, who were already suffering serious losses in their dug-in defensive positions. Air Superiority and the ability to coordinate aerial fire-power with ground forces were the keys to coalition victory at Khafji. These were also keys to success when the ground campaign exploited the effects of the air campaign on day 39 of the war.

HOWEVER: The Battle of Khafji demonstrated a weakness in the initial air plan called for by Col Warden (Instant Thunder): The Iraqi advance on Kaffji was an absolute surprise, and caught us off-guard at first. As reported by William M. Arkin in "Week Four: Instant Thunder" Stars and Stripes Omnimedia 21 Aug 00, "[Gen Charles] Horner's own recollections of August 1990 are both charitable towards Warden, and rigid on the enduring debate over strategic bombing. Though he says now he could not fault Warden for the 'glittering list of targets he laid out [in the initial Instant Thunder plan],' he says Warden's problem is that he saw war 'in terms of the SIOP,' the Single Integrated Operational Plan model of nuclear targets in the Soviet Union. 'Execute this plan and the enemy is defeated,' Horner scoffs. 'Well, good. But what if he decides not to be defeated? What do we do then?'"

In DESERT STORM, the answer was to divert airpower from planned strategic strikes so we could respond to the advancing Iraqi armor. Thanks to the air superiority we enjoyed, we were able to halt the Iraqi advance before it could cause much damage. But the fact that the Iraqis could advance at all calls into question Warden's theory that decapitating Iraqi leadership would paralyze Iraqi forces in the field. Saddam Hussein hoped to give the coalition a "bloody nose," which might have eroded coalition unity, or might have caused the American public to demand a cessation of hostilities. Fortunately, thanks to the response of our airpower, he failed.}

FUQ: HOW LONG DID THE GROUND WAR LAST?

AR:

- Almost 100 hours

FUQ: HOW AND WHEN DID OPERATION DESERT STORM END?

AR:

- The operation ended by a cease fire on 28 Feb 1991

(TRANSITION): KNOWING FACTUAL INFORMATION ABOUT THE CAMPAIGN HELPS “CLEAR THE FOG” ON WHAT TOOK PLACE. NOW, LET’S TURN OUR ATTENTION TO THE CORE COMPETENCIES AND HOW WE EXHIBITED THEM DURING THE GULF WAR.

{Instructor Note: Explain to your students that the Air Force did not officially identify its Core Competencies in doctrine until the publication of AFDD 1 in 1997. But they were surely evident in our actions during Operation DESERT STORM. By employing effectively the functions that would become its Core Competencies, the Air Force proved how its Core Competencies enable aerospace power. Furthermore, this process of developing Air Force doctrine demonstrates the concept that military theories and doctrine arise from analyzing historical examples of military operations--that concept was discussed in A3010, Theory, Doctrine, Objectives, and Strategy.}

[SLIDE]



- c. MP II: Core Competencies and Operation DESERT STORM: 0:20 (0:55)**

LOQ: ACCORDING TO YOUR READING, HOW DID AIR AND SPACE SUPERIORITY CONTRIBUTE TO OPERATION DESERT SHIELD AND OPERATION DESERT STORM?

AR:

- First priority of the air campaign was to gain and maintain air and space superiority and provide a protective umbrella for allies
- F-15Cs from Langley AFB, VA, flew to the area on 7 Aug 1990 as “show of force” and to be the 1st line of defense against potential Iraqi forces. They provided a DCA barrier for protection and helped prevent an attack by the Iraqi air force, but offered only limited protection against a ground assault
- Entire focus of the air campaign’s first strikes were aimed at taking down enemy Integrated Air Defense System (IADS) (an Offensive Counterair function) so that follow-on aircraft could strike their targets
- Apache helicopters struck key IADS nodes, F-117s hit critical C3 targets deep in Baghdad, EA-6Bs and F-4G “wild weasels” used electronic warfare to counter enemy air defenses
- First three days of the war, Iraq put up some air-to-air resistance. But, by day 3 and several lost aircraft later, they decided to ride out the storm in their shelters. On day 7, the US started bombing airfields and shelters. Iraqi aircraft began to flee to Iran where they stayed for the remainder of the war.
- Air Superiority achieved after first few hours of the war. Air Supremacy was declared by the coalition on 27 Jan 91--**we essentially owned the skies...the Iraqi air force couldn’t function.**

FUQ: HOW WAS INFORMATION SUPERIORITY USED DURING THE GULF WAR?

AR:

- **Gulf War is sometimes called the “first information war”**
- Platforms such as U-2, RC-135, space sensors, EC-130, E-3 AWACS, and E-8 JSTARS were used to gather intel on the enemy
- Isolating Iraqi leadership was the key objective of the air campaign. To do this, planners identified microwave towers, key switching stations, fiber optic nodes, and bridges that carried coaxial cables for destruction.
- Our persistent strikes and resulting damage forced Iraqi leadership to use backup systems that were vulnerable to coalition eavesdropping. This

provided valuable intelligence data, particularly in the days preceding the ground campaign

- We employed deception prior to first night's sorties and the ground assault:
 - DCA patrols and reconnaissance orbits were so routine that Iraqis were lulled into false sense of normalcy. Then we hit them hard with lightning strikes, and caught the Iraqis totally off guard
 - Marines feinted amphibious assault on Kuwait...acted as diversion for Army's famous "left hook" that trapped escaping Iraqi troops. Result: the concentration of Iraqi forces in defense of the amphibious invasion allowed US forces to maneuver for the kill.

FUQ: ACCORDING TO YOUR READING, HOW WAS RAPID GLOBAL MOBILITY USED TO SUPPORT THE WAR EFFORT?

AR:

- We had few areas from which to operate in the region...very little US presence other than carrier battle groups in Red Sea and Persian Gulf
- As a result, AF moved equivalent of population of Oklahoma City during the DESERT SHIELD buildup--the equivalent of Berlin Airlift every 6 weeks
- Average daily effort was 17 million ton-miles...just 6 weeks of DESERT SHIELD = 65 total weeks of Berlin Airlift in 1948-49
- More than 91,000 troops and 72,000 tons of cargo moved in the first 30 days of Operation DESERT SHIELD
- Operation was built around C-141, C-5, and C-130s flying strategic and intra-theater airlift
- First time the Civil Reserve Air Fleet (CRAF) was activated since its inception
- Tanker support was critical--KC-135s and KC-10s provided over 51,000 in-flight refuelings and 800 million pounds of fuel
- By end of the war, airlift had flown 15,800 missions, transported over half a million passengers, and over half a million tons of cargo to the Middle East

FUQ: HOW WAS GLOBAL ATTACK USED TO SUPPORT THE GULF WAR?

AR:

- B-52Gs from CONUS flew missions in support of the air campaign
 - 7 Barksdale B-52s flew over 14,000 miles in a marathon 30+ hour mission to deliver CALCMSs on first day strikes

- Within hours of D-day, many more “BUFFs” were flying missions out of Moron AB, Spain; Wurtsmith AFB, Michigan; Castle AFB, CA; Diego Garcia in the Indian ocean; and RAF Fairford from the United Kingdom
- All these aircraft performed both strategic and tactical missions. Those from outside the Kuwaiti theater of operations provide the greatest example of Global Attack: With 14,000-mile trips, several in-flight refuelings, and missions lasting 30 hours, they certainly illustrated this Core Competency
- Many other aircraft flew “strategic attack” missions from bases in theater. Although they didn’t launch from halfway across the globe, they still provide a good example of Global Attack
 - F-117s flew strike missions to Baghdad on the first night of the war
 - F-15Es flew missions over airfields, mobile SCUD targets, and other areas
 - F-16Cs flew strike sorties, as did many other nation’s aircraft
- **The bottom line is, we were able to attack Iraq rapidly and persistently with a wide range of munitions on a continual basis (Global Attack)**

FUQ: HOW WAS AGILE COMBAT SUPPORT USED TO SUPPORT OPERATION DESERT SHIELD AND OPERATION DESERT STORM?

AR:

- The distance from the CONUS to Saudi Arabia, plus our lack of bases in theater, made travel to the region extremely costly and difficult. The Saudis had some air bases prepared, but not nearly enough to handle the 500,000-person influx during the 6-month buildup of Operation DESERT SHIELD
- Almost everything the coalition needed came from somewhere outside of the theater. This included aircraft, beds, blankets, bombs, water, food. . . everything necessary to sustain troops and generate sorties in a hostile environment
- The tactical airpower assembled in the Gulf region exceeded more than 400 combat aircraft and 250 support aircraft by the January 1991--roughly equivalent to the force deployed in Europe during the height of the Cold War
- In a remote area south of Riyadh called Al Kharj, we built an entire base from scratch. An Air Force Rapid Engineer Deployable Heavy Operational Repair Squadron, Engineer (RED HORSE) was one of the first teams on-site to build the infrastructure and weapon storage areas needed to support further base buildup
- The Air Force learned that the key to sustaining and generating wartime sorties in the Saudi desert was the ability of support personnel to provide

sufficient living conditions and base structure. **Clearly, Agile Combat Support was the “linchpin” that tied all the other Core Competencies together.**

FUQ: HOW WAS PRECISION ENGAGEMENT ILLUSTRATED DURING THE GULF WAR?

AR:

- Perhaps the most impressive memories of the Gulf War were those “CNN lunchtime videos” that demonstrated our use of precision weapons: bombs going in ventilation shafts, hardened aircraft shelters being demolished, bridges getting dropped, and tanks exploding from infrared-seeking Maverick missiles
- F-117s in downtown Baghdad proved that stealth plus smart weapons equals fewer sorties and more efficient strikes
- Collateral damage was somewhat controlled in populated areas, thereby achieving the US goal of destroying the Iraqi war machine--not the people
- Air Launched Cruise Missiles on B-52s allowed unmanned destruction of key Integrated Air Defense System (IADS) sites
- Tomahawk Land Attack Missiles were the only strike weapon used over Baghdad during daylight for the first few days of the war--that way, we put no pilots in danger and accomplished the task
- **The bottom line is, the Air Force was able to command, control, and employ forces to cause discriminate effects at the strategic, operational, and tactical levels (i.e., Precision Engagement)**

FOQ: WHICH CORE COMPETENCY PLAYED THE MOST IMPORTANT ROLE IN OPERATION DESERT STORM?

AR:

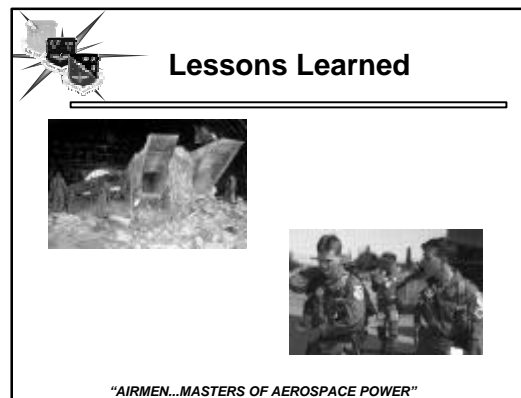
- None. Each one played an important role.

INTERIM SUMMARY (Instructor Note):

1. Include students’ ideas that support main points.
2. Add new information as necessary.
3. Reinforce key elements that will be needed throughout the lesson.

(TRANSITION): NOW THAT WE'VE DISCUSSED HOW THE AIR FORCE EMPLOYED ITS CORE COMPETENCIES DURING THE GULF WAR, LET'S TAKE A LOOK AT SOME OF THE LESSONS LEARNED IN THE CONFLICT.

[SLIDE]



d. **MP III: Lessons Learned:** 0:25 (1:20)

LOQ: WHAT WERE SOME OF THE LESSONS LEARNED FROM PROBLEMS WE ENCOUNTERED DURING OPERATION DESERT SHIELD AND OPERATION DESERT STORM?

- Don't expect to have such a long build-up time in future engagements
 - Saddam gave the US-led Coalition ample time to position forces in theater--we weren't ready to respond quickly on such a large scale
 - The EAF concept is supposed to remedy that situation with a notional response time of 72 hours.
- Future adversaries may also be armed with weapons of mass destruction (WMD)--and they may be willing to use them. The military must work on theater missile defense and other techniques to counter this threat
 - We were very lucky--Saddam kept his WMD on the shelf. But what if we had driven into Baghdad? What if Saddam decided to use WMD?
 - India's former Army Chief of Staff said, "The lesson of Desert Storm is, 'Don't fight with the US without a nuclear weapon.'" Intelligence reports since Operation DESERT STORM indicate that adversaries have taken this advice to heart.
- We must exploit the benefits of stealth and precision
 - The US public has become accustomed to little US bloodshed on the battlefield. Thus, they expect the military to use weapons that avoid collateral damage and inflict maximum pain on the enemy while

- preserving human life. Commanders must be cautious with this approach to warfare. The enemy will exploit this American expectation and see it as a sign of weakness.
- GPS was found to have superb ability to guide aircraft to targets in bad weather--the next step was to incorporate GPS into the munitions themselves and spread GPS receivers to everyone in the theater
 - The need to minimize casualties affects planning, decision-making, and operational effectiveness
 - Although we used tactics and planning to minimize aircraft losses, we will not always come out as clean as we did in Operation DESERT STORM--Presidents will always be very cautious regarding the patience level of the public when large numbers of US lives are at stake
 - We attacked Iraqi war machinery to destroy their war-making power, but tried to avoid Iraqi loss of life--that requires meticulous planning and may hamper political decisions in future conflicts
 - The US is far too dependent upon foreign basing. If Saudi Arabia had not agreed to have foreign forces on their soil, we would have had to rely on cruise missiles and the Navy almost exclusively. We simply cannot provide a “global presence” without adequate troop levels, money, or space-based sensors
 - Cruise missiles are no “panacea.” They are expensive to procure and not effective against mobile or heavily-hardened targets. But they are popular with politicians because they don’t endanger a pilot’s life
 - SCUD hunting is not easy and may cause significant political problems
 - There were no “confirmed” Coalition kills of mobile SCUD launchers
 - Planners had to allocate additional assets to this minor military threat because it was a major political issue (especially regarding Israel)

FUQ: WHAT WERE SOME OF THE LESSONS LEARNED FROM OPERATION DESERT STORM SUCCESSES?

- Centralized command and Decentralized execution works
 - Having one commander responsible for control of the air is essential. The fact that General Schwarzkopf placed General Horner in command as the JFACC was probably the greatest achievement of the campaign, doctrinally
 - Having a JFACC meant that the air campaign could be controlled by one person, thus combining the necessary forces into an effective and efficient fighting force

- Gradual response to hostile powers doesn't work. Swift, thunderous strikes at the heart of the enemy's centers of gravity are key to shutting down the enemy early in the game before the enemy has a chance to counterstrike
- Gaining & maintaining air and space superiority at the start of the campaign is the key to victory: To control the air is to control the entire theater
- Clear and concise objectives from the strategic level on down are critical in combat
 - Some believe that President Bush set clear and concise objectives for the military operation, overall (but this is a debated point)
 - General Schwarzkopf established very good theater objectives
 - General Horner turned those into clear, concise, measurable and attainable theater aerospace objectives (again, this is a debated point)
- Information Superiority is also key to achieving objectives
 - We could generally "see" the Iraqis, but they were blind to our actions
 - We destroyed Iraqi IADS and also prevented the Iraqis from getting into our "Observe, Orient, Decide, Act" decision making process (our so-called "OODA loop")
- Operation DESERT STORM was a watershed for space operations: For the first time, space assets were absolutely vital to the war on the earth
 - Navigation: GPS signals guided aircraft to targets in any type of weather
 - Weather: DMSP, GOES, and NOAA satellites helped predict the best times for using laser-guided weapons
 - Communication: Almost 90% of all strategic communications back to CONUS went via satellite (DSCS, UHF Follow-On, and MILSTAR)
 - Early Warning: SCUD missile launches were tracked and identified by DSP satellites
 - ISR: Space-based sensors provided a very detailed picture of Iraq's forces. In general, commanders had good intel on the enemy, but we have much to learn on getting info to the theater in a timely manner

***{Instructor Note:** Desert Storm presented many "firsts" for space. However, one of the more noteworthy accomplishments was the movement of a Defense Satellite Communications System (DSCS) spacecraft over 100 degrees in geosynchronous orbit to help accommodate in-theater bandwidth requirements. Given the order on 17 Nov 90, the 3rd Space Operations Squadron at Schriever AFB, CO, commanded a reserve DSCS II satellite to move in orbit towards the Indian Ocean. At a drift rate of 4° per day, the satellite arrived on station by 19 December and was declared "operational" on 22 Dec 91. This was the first time an orbiting satellite had been moved in response to combat operations on the ground. It provided the*

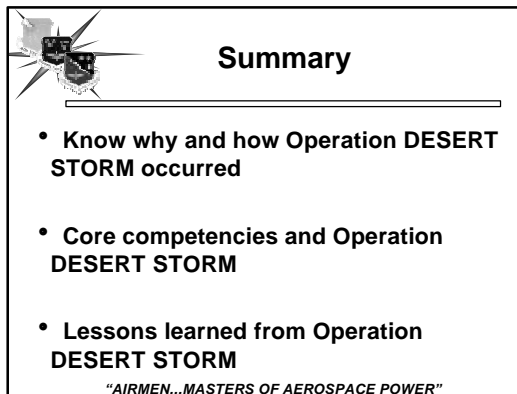
reachback capability that was needed but used so much of the on-board fuel that the satellite's design life was significantly reduced.

Source: Dr. David Spires. Beyond Horizons. 1998, pp. 246-48.]

(TRANSITION): THE GULF WAR PROVIDED MANY EXAMPLES OF SUCCESSES AND DIFFICULTIES FROM WHICH THE U.S. MILITARY TOOK COPIOUS NOTES. REGARDLESS OF THE DECISIONS MADE, THE OUTCOME VERIFIED WHAT AIR POWER ADVOCATES HAD BEEN CLAIMING FOR DECADES: AIR POWER CAN WIN OUR NATION'S WARS. HAVING SAID THAT, LET'S RECAP WHAT WE'VE LEARNED.

e. Conclusion: 0:10 (1:30)

[SLIDE]



Summary

- Know why and how Operation DESERT STORM occurred
- Core competencies and Operation DESERT STORM
- Lessons learned from Operation DESERT STORM

"AIRMEN...MASTERS OF AEROSPACE POWER"


1) //Summary//

We started the lesson by reviewing the facts of Operation DESERT STORM. We studied the key events, people, and places surrounding the war so we could get a good grasp on why and how the operation happened the way it did. Those facts led us to deeper discussions on how the Air Force Core Competencies contributed to the overall campaign. We discovered that although the Core Competencies weren't officially published in Air Force Doctrine until the release of AFDD 1 in 1997, the Air Force exhibited them quite well in Operation DESERT STORM. In other words, our direct actions during the war led to the development of doctrine that established the Air Force Core Competencies. Clearly, this is an example of historical events driving changes in theory and doctrine. Finally, we examined some of the lessons learned during the war. These will provide good food for thought when examining Operation ALLIED FORCE in lesson A3060. You may want to ask yourself, did we really learn our lessons from the Gulf War?


2) //Remotivation//

Airpower has been heralded as the basis of our success in the Gulf War. We all saw how effective leadership in the Air Force played a crucial role in employing our forces successfully. Many don't take the time to consider that those leaders were once lieutenants like you. What set them apart? What caused them to excel? In the next conflict, you could be in the thick of things, and your decisions may affect not just your life, but the lives of others as well. The question I pose to you is, will Operation DESERT STORM be just an event in one of your history books, or a distant memory in your mind? Or, will you learn from the successes as well as the shortcomings of Operation DESERT STORM? Will you study those events and become more knowledgeable, so you can make the best decisions when the time comes?

[SLIDE]



Closure



**" Gulf lesson one is the value of airpower
...(it) was right on target from day one"**

**President George Bush
29 May 1991**

"AIRMEN...MASTERS OF AEROSPACE POWER"

3) //Closure//

The rapid success of the ground campaign is testimony to the synergistic effects of an aerospace campaign that exploits the advantages of our aerospace power while avoiding the enemy's strengths. Operation DESERT STORM truly was a turning point in our nation's military history, allowing veterans of the Vietnam War to capitalize on the mistakes that were made when they were young lieutenants. The entire experience illustrated the continuing relevance of aerospace power and the impact it has on today's military operations. As summarized by former President George Bush, "Lesson number one from the Gulf War is the value of airpower."